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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Johnny Farm

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EXAMINER

TRIEU, THERESA

ART UNIT

PAPER NUMBER

3748

MAIL DATE

DELIVERY MODE

04/02/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/516,857	Applicant(s) FARM ET AL.	
	Examiner Theresa Trieu	Art Unit 3748	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 August 2007 and 09 April 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8, 10 and 11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8, 10, 11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This Office Action is responsive to the applicants' amendment filed on Aug. 31, 2007 and April 9, 2007.

Claims 1-8, 10 and 11 are pending in this application.

Applicants' cooperation in correcting the informalities in the drawing and specification are appreciated.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

1. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koyama (Publication Number JP 11-013640) in view of design choice.

Regarding claim 1, as shown in Figs. 1 and 8, Koyama discloses a gear pump comprising a ring gear (5) supported for rotation, having an open center region, and having internal teeth

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projecting into the center region; a gearwheel (1, 11) arranged eccentrically within the center region of the ring gear and including external teeth intended to engage with the ring gear internal teeth the gearwheel having a hole through it, the gearwheel having an axial extent; a rotatable shaft (12) including a portion which extends through the hole in the gearwheel; the portion of the shaft includes a first surface (12a) and the gearwheel includes a second surface (11a), the first surface and the second surface are shaped to allow transfer of rotary motion from the shaft to the gearwheel, and a transfer between the first surface and the second surface takes place via a region of contact (not numbered; however, clearly seen in Fig. 8 and abstract). However, Koyama fails to disclose region of contact having an axial extent being less than half of the gearwheel axial extent.

It is examiner's position that one having ordinary skill in the gear pump, would have found it obvious to utilize the range of the region contact between the shaft and the gearwheel, since they are merely design parameters, depending on temperature, pressure, or stress acted/applied on the teeth of the gearwheel or depending on being used for a particular purpose, or solving a stated problem. Moreover, there is nothing in the record which establishes that the claimed range of the region contact between the shaft and the gearwheel, presents a novel of unexpected result (See *In re Kuhle*, 526 F.2d 553, 188 USPQ 7 (CCPA 1975)). Applicants also note that it would have been obvious to one having ordinary skill in the art at the time the invention was made to have an axial extend of the region contact less than half of the gearwheels' axial extent, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill

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in the art. *In re Aller*, 220F.2d 454,456, 105 USPQ 233, 235 (CCPA 1955) (see MPEP §2144.05).

Regarding claims 2-8, Koyama further discloses the radial plane is located so it divides the region of contact into two substantially equal areas (see Figs. 5 and 8); a recess in the shaft (12a) in which the first surface is included; the second surface (11a) being included in a portion of the gearwheel (11) which extends radially inwards in the gearwheel hole (not numbered; however, clearly seen in Fig. 8); an open center region (see Fig. 8), the second surface (1a, 11a) having a substantially planar extent in an axial direction and the first surface (2a, 12a) having a curved extent in an axial direction and shaped to define the region of contact (see Fig. 5a); the first surface (2a, 12a) having a planar extent in an axial direction and that the second surface (11a) having a curved extent in an axial direction with a shape to define the region of contact.

2. Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koyama in view of design choice, as applied to claim 1 above, and further in view of Russell (Patent Number 2,496,497).

The modified Koyama device discloses the invention as recited above; however, the modified Koyama fails to disclose the gear pump being used in a hydrodynamic brake.

Russell teaches that it is conventional in the art to utilize a hydrodynamic brake comprising a stator (20) with blades (32), a rotor (24) with blades (24), and the rotor and stator defining a working space to receive a medium, an inlet and an outlet from the working space; a storage space for the medium and connected to the inlet to the space; and the gear pump (44) being between the working space and the inlet; the hydrodynamic brake (18) further comprising a structure with a multiplicity of recesses, each of the recesses has an opening in a substantially

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common plane, and the gear pump (44) is arranged in one of the recesses (not numbered; however, clearly seen in Fig.2). It would have been obvious to one having ordinary skill in the art at the time the invention was made, to have utilized the hydraulic brake and gear pump in the recess, as taught by Russell in the modified Koyama apparatus, since the use thereof would have allowed the pump to be installed as a unit with the brake and provided a compact design and effective fluid friction brake.

Response to Arguments

3. Applicant's arguments filed April 9, 2007 have been fully considered but they are not persuasive.

- Applicant states that "the resulting product has eliminated the risk of the uneven stressing of the gearwheel and the invention was not obvious to those skilled in the art" (see Remarks section, pages 7 and 8) the examiner respectfully disagrees.

Under some circumstances, however, changes such as these may impart patentability to a process if the particular ranges claimed produce a new and unexpected result which is different in kind and not merely in degree from the results of the prior art. In re Dreyfus, 22 CCPA (Patents) 830, 73 F.2d 931, 24 USPQ 52; In re Waite et al., 35 CCPA (Patents) 1117, 168 F.2d 104, 77 USPQ 586. Such ranges are termed "critical" ranges, and the applicant has the burden of proving such criticality. In re Swenson et al., 30 CCPA (Patents) 809, 132 F.2d 1020, 56 USPQ 372; In re Scherl, 33 CCPA (Patents) 1193, 156 F.2d 72, 70 USPQ 204. However, even though applicant's modification results in great improvement and utility over the prior art, it may still not be patentable if the modification was within the capabilities of one skilled in the art. In re Sola, 22 CCPA (Patents) 1313, 77 F.2d 627, 25 USPQ 433; In re Normann et al., 32 CCPA (Patents)

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1248, 150 F.2d 627, 66 USPQ 308; *In re Irmischer*, 32 CCPA (Patents) 1259, 150 F.2d 705, 66 USPQ 314. More particularly, where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation. *In re Swain et al.*, 33 CCPA (Patents) 1250, 156 F.2d 239, 70 USPQ 412; *Minnesota Mining and Mfg. Co. v. Coe*, 69 App. D.C. 217, 99 F.2d 986, 38 USPQ 213; *Allen et al. v. Coe*, 77 App. D.C. 324, 135 F.2d 11, 57 USPQ 136.

- Regarding the 35 U.S.C. 103(a) rejection, applicant also asserts that the examiner has not established a prima facie case of obviousness since Koyama does not teach all of the claimed limitations recited in the claims (see the Remarks section, pages 7 and 8). The examiner is respectfully traversed. On the contrary, as set forth above, the Koyama reference does anticipated the invention as claimed since it teaches all of the claimed limitations. Thus, the prima facie case of obviousness has been established and claims 1-8, 10 and 11 are remained rejected as discussed above.

- In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Conclusion

4. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Communication

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Theresa Trieu whose telephone number is 571-272-4868. The examiner can normally be reached on Monday-Friday 8:30am- 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas E. Denion can be reached on 571-272-4859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TT
March 31, 2008

/Theresa Trieu/
Primary Examiner, Art Unit 3748